

**CLAIMS**

What is claimed is:

1. A method for distributed processing of print jobs using multiple printer processors and centralized printing, comprising the steps of:

5       dividing a print job into a plurality of print job segments in a print distribution module;

          transmitting the plurality of print job segments to one or more distribution responsive printers;

          processing the plurality of print job segments using the one or more distribution  
10 responsive printers;

          receiving the plurality of print job segments from the one or more distribution responsive printers at the print distribution module; and

          printing the plurality of print job segments at a target printer when the plurality of segments is received from the print distribution module.

- 15       2. A method as in claim 1, further comprising the step of sending the print job from a digital device to the print distribution module.

- 20       3. A method as in claim 2, wherein the step of sending the print job from a digital device to a print distribution module further comprises the step of sending the print job from the digital device to the print distribution module through a wired connection.

- 25       4. A method as in claim 2, wherein the step of sending the print job from a digital device to the print distribution module further comprises the step of sending the print job from the digital device to the print distribution module through a wireless connection.

- 30       5. A method as in claim 2, wherein the step of sending the print job further comprises the step of sending the print job from a digital device to a print distribution module through a computer network.

6. A method, as in claim 1, further comprising the step of configuring firmware of the one or more distribution responsive printers to receive print job segments in a variety of common print languages.

7. A method as in claim 1, wherein the step of dividing the print job further comprises the step of dividing the print job into print job segments that are a single printed page.
8. A method as in claim 1, wherein the step of transmitting the plurality of print job  
5 segments further involves the step of transmitting a first print job segment of the plurality of print job segments to a target printer to be printed and transmitting remaining print job segments to the one or more distribution responsive printers.
9. A method as in claim 1, wherein the step of processing the plurality of print job segments  
10 further comprises the step of processing the plurality of print job segments using two or more distribution responsive printers, said plurality of print job segments being processed into print engine-ready data.
10. A method as in claim 1, wherein the step of receiving the plurality of print job segments  
15 further involves the step of sending the plurality of print job segments from the print distribution module to the target printer.
11. A method as in claim 1, further comprising the step of determining which types of  
20 distribution responsive printer connected to the network will be used for processing the print job.
12. A method as in claim 11, further comprising the step of determining an operational state  
25 of each of the two or more distribution responsive printers that are connected to a network.
13. A method as in claim 12, wherein the step of transmitting the plurality of print job  
segments to one or more distribution responsive printers, further comprises the step of  
transmitting the plurality of print job segments to one or more distribution responsive  
30 printers that are determined to be a similar model as the target printer.
14. A method as in claim 12, further comprising the step of transmitting the plurality of print  
job segments to one or more distribution responsive printers that are determined to be  
available by the print distribution module.

15. A method as in claim 1, wherein the step of receiving the plurality of print job segments further comprises the step of receiving the plurality of print job segments from the distribution responsive printers by querying the one or more distribution responsive printers with the print distribution module.

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16. A method as in claim 1 wherein the step of receiving the plurality of print job segments further comprises the step of transmitting the plurality of print job segments from the distribution responsive printers to the print distribution module.

10 17. A method as in claim 16, wherein the step of transmitting the plurality of print job segments is performed immediately after an individual print job segment from the plurality of print job segments has completed processing.

15 18. A printing system to distribute processing of print jobs using multiple printer processors and centralized printing, comprising:

a print distribution module configured to divide a print job into a plurality of print job segments;

a distribution responsive printer configured to receive and process one or more of the plurality of print job segments from the print distribution module; and

20 wherein the print distribution module is further configured to receive one or more print job segments from the distribution responsive printer after processing.

25 19. A system as in claim 18, wherein the print distribution module is configured to transmit a first print job segment of the plurality of print job segments to a target printer to be printed.

20. A system as in claim 19, wherein the print distribution module is configured to transmit a remainder of the print job segments to one or more distribution responsive printers.

30 21. A system as in claim 20, wherein the target printer is a distribution responsive printer.

22. A system as in claim 18, wherein the print distribution module is configured to divide and transmit a remainder of the print job segments between one or more distribution

responsive printers and the target printer.

23. A system as in claim 18, wherein the printing system further comprises a computer network.

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24. A system as in claim 23, wherein a digital device is connected to the network to send a print job.

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25. A system as in claim 24, wherein the digital device is configured to transmit a print job to the print distribution module.

26. A system as in claim 18, wherein the print distribution module is configured to determine the model and status of each distribution responsive printer connected to a network.

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27. A system as in claim 20, wherein the print distribution module is configured to transmit a remainder of the print job segments to one or more distribution responsive printers when the print distribution module has determined the one or more distribution responsive printers are not busy.

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28. A system as in claim 20, wherein the print distribution module is configured to query one or more distribution responsive printers to which a remainder of the print job segments have been sent, and receive the remainder of the print job segments when one or more distribution responsive printers have completed processing the remainder of the print job segments.

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29. A system as in claim 28, wherein the print distribution module is configured to receive processed data from processing of a remainder of the print job segments at the distribution responsive printers as soon as the processed data is available.

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30. A printing system to distribute processing of print jobs using multiple printer processors and centralized printing, comprising:

a print distribution means for dividing a print job into a plurality of print job segments;

a distribution responsive printer means for receiving and processing one or more of the plurality of print job segments from the print distribution means;

5 wherein the print distribution means is further configured to receive one or more print job segments from the distribution responsive printer after processing; and

a target printer means for receiving the one or more print job segments from the print distribution means and for printing the one or more print job segments.

10 31. An article of manufacture, comprising:

a computer usable medium having computer readable program code embodied therein for distributed processing of print jobs using multiple printer processors and centralized printing, the computer readable program code in the article of manufacture comprising:

15 computer readable program code for dividing a print job into a plurality of print job segments in a print distribution module;

computer readable program code for transmitting the plurality of print job segments to one or more distribution responsive printers;

computer readable program code for processing the plurality of print job segments using the one or more distribution responsive printers;

20 computer readable program code for receiving the plurality of print job segments from the one or more distribution responsive printers at the print distribution module; and

25 computer readable program code for printing the plurality of print job segments at a target printer when the plurality of segments is received from the print distribution module.